

Date: Tue, 9 Nov 93 04:30:36 PST
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V93 #98
To: Ham-Homebrew

Ham-Homebrew Digest Tue, 9 Nov 93 Volume 93 : Issue 98

Today's Topics:

 Modification of SR210 (150W SSB HF RTX)
 My home brew..

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 9 Nov 1993 07:43:09 GMT
From: olivea!flash!robertov@uunet.uu.net
Subject: Modification of SR210 (150W SSB HF RTX)
To: ham-homebrew@ucsd.edu

Hi there,
I have got a SR-210 HF SSB (150W) TRANSCEIVER by SCIENTIFIC RADIO SYSTEM INC.
367 Orchard Street
Rochester, New York

This radio is from 1975.
It has 10 channels that can be placed into HF frequencies but
unfortunatly everything is designed for a fixed configuration.
For example the there are 10 output network that are fixed and
parts (capacitor) should be changed when you wish to change
frequency (changing the crystal) the same is more or less true
for the input mixer network . A multisection rotary switch
with 10 position select all the 10 different network.

Question:

Does anybody know the better way to modify this radio and make it working by using a VFO instead of only using the 10 available channels that are standard with the ten xtal that are into it.

I have figured out some ways but I am not sure.

If somebody already did some modification on this equipment I am asking for hints.

I want to move from each channel 100KHZ so that the input and output network should not suffer too much about the modification.

Thanks in advance to anybody that will help me.

73

If possible please reply at this addr. robertov@hqlab.ico.olivetti.com

Date: Sun, 7 Nov 1993 17:00:51 GMT
From: sdd.hp.com!cs.utexas.edu!swrinde!gatech!usenet.ins.cwru.edu!nshore!fmsystem.telex.com!andrews@network.ucsd.edu
Subject: My home brew..
To: ham-homebrew@ucsd.edu

In article <2bivng\$ieo@reznor.larc.nasa.gov> kludge@grissom.larc.nasa.gov (Scott Dorsey) writes:

>In article <CG3BHz.1z6@csn.org> dfeldman@teal.csn.org (Dave Feldman) writes:

>>Well I just sampled the last of my 3 batches of home brew and they all
>>came out great (an ale, a bock, and a wheat). I just want to know why
>>my homebrew radio projects don't improve with age... 73 - wb0gaz

>

>On a more interesting note, I got my first international contact with the
>\$10 Teenage Mutant Ninja Turtle HT, recrystalled for 6M and with an added
>amplification stage on the output for almost half a watt of power. Okay,
>so it was only Canada, but it's still going to be a lot of fun to fill
>out the EQUIPMENT: field on the QSL card.

>--scott

Come on Scott, youv'e got to send me the schematics and mod's to convert the 'Mutant' walkie to a 6M QRP HT. I've been looking for this mod forever!

BTW (for DAVE), I've been drinking alot of micro-brewrey beer. It's all over the place. Of course, you can always send me a bottle and I'll tell ya how it rates...

--

Tell Me Something I Don't Know,

! HAM =

N80FS

Show Me Something I Can Use, ! ARMY MARS = AAN5HJT
Push The Buttons, ! CB = THE NEON KNIGHT
Connect The God-Damn Dots!!! - Ministry ! HACKER = TH3 N30N KN16Ht

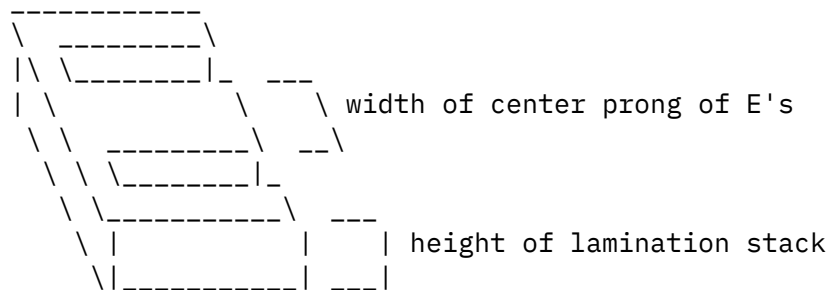
Date: Sat, 6 Nov 1993 05:01:28 GMT
From: elroy.jpl.nasa.gov!swrinde!gatech!news-feed-1.peachnet.edu!umn.edu!csus.edu!
netcom.com!wa2ise@ames.arpa
To: ham-homebrew@ucsd.edu

References <1993Nov3.191337.21649@jupiter.sun.csd.unb.ca>,
<2bb029INN93f@news.uwsuper.edu>, <1993Nov5.192134.17150@jupiter.sun.csd.unb.ca>
Subject : Re: Rewinding transformers

Somebody mentioned how many turns per volt, and such. I wound some transformers back in high school days. Saw an article in a model railroad magazine (of all places!) that had an equation like:

number of turns for 110 volt primary = $800 \times$ square inch area of laminations,

plane of which is the plane of the loop of wire that would form a single turn. Measure the height of the stack of all the E's laminations, and the width of the center prong of an E lamination.



Once you have the number of required turns for the primary, you can easily figure number of turns per volt. $\text{pri turns}/110 = \text{turns per volt}$

You have to have enough turns to keep the magnetic flux B low enough so the laminations don't saturate. If I remember my electromechanical devices class right, don't go above 1.5 for B. Don't remember what the units were called though. The idea (magnetic charging? current in the primary is kept lower by the permeability of the laminations, than if it was air. But that's only good until you saturate the laminations with magnetism. When that happens, the idle current soars, and you get lots of i r heating, and most likely a smokey firey burnout!

Go to the library or your double E dept and ask someone.

Western culture is like a virus that has infected the entire world :-)

Date: 8 Nov 1993 14:08:10 GMT
From: news.larc.nasa.gov!grissom.larc.nasa.gov!kludge@ames.arpa
To: ham-homebrew@ucsd.edu

References <CG3BHz.1z6@csn.org>, <2bivng\$ieo@reznor.larc.nasa.gov>,
<CG4sLG.Fny@fms.com>klu
Subject : Re: My home brew..

In article <CG4sLG.Fny@fms.com> andrews@fms.com (Andrew Sargent N80FS) writes:
>In article <2bivng\$ieo@reznor.larc.nasa.gov> kludge@grissom.larc.nasa.gov (Scott
Dorsey) writes:

>>

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>convert the 'Mutant' walkie to a 6M QRP HT. I've been looking for
>this mod forever!

On the transmit side, it's really just an VCXO without any tuned amp; you
can replace the crystal without making any other circuit changes (although
you might want to replace the 220K resistor with a smaller value in order
to get a bit more output power).

With a 5K resistor in place, you can get enough power to drive a 2N2222 stage
class C without any problem.

The receive side is a bit harder; it's really just a TRF set with a single
tuned circuit. You can just reduce the capacitance on the tank circuit to
move the frequency up a bit, and use the adjustable coil to set it exactly.
The performance stinks, though. It's no worse on 6M than it is on 49 MHz,
but it's almost unusable on 49 MHz.

There are some mods for the Radio Shack personal communicator sets, which
apparently use that Motorola quick-and-dirty transceiver chip set. Now, that
looks like a nice 6M HT.

--scott

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"C'est un Nagra. C'est suisse, et tres, tres precis."

End of Ham-Homebrew Digest V93 #98
